

DAV PUBLIC SCHOOL, IFFCO, PARADEEP

HOLIDAY HOMEWORK 2021-22

SCIENCE STD- XI

HOLIDAY HOMEWORK (STD XI) SUBJECT : ENGLISH

1. Read at least five stories of Oscar Wilde and make a review of them.

2. Prepare a tense chart and learn and write of 200 verbs with their present , past and past participle forms.

3. watch news and write at least 5 positive news items date wise in a separate note book.

4. Interested students can write original poems and articles to be published in the school magazine. (No Copying from anywhere)

5. Revise the lessons taught for a test.

HOLIDAY HOMEWORK (STD XI) SUBJECT : PHYSICS

TOPIC: UNIT AND MEASUREMENT

- 1. Check the correctness of the relation $\tau = I\alpha$, where τ is the torque on a body, I is the moment of inertia and α is angular acceleration.
- 2. Find the dimension of a/b in the equation $F=a\sqrt{x} + bt^2$, where F= force, x is distance and t is time.
- 3. The Vander Wall's equation for a gas is (P+ a/V²)(V-b)=RT
 Determine the dimensions of a and b. Hence write the SI units of a and b.

4. Find the dimensions of (a x b) in the equation $E = \frac{a-t^2}{bx}$; where E is energy, x is distance & t is time.

- 5. When white light travels through glass, the refractive index of glass (μ = velocity of light in air/velocity of light in glass) is found to vary with wavelength as $\mu = A + \frac{B}{\lambda^2}$. Using the principle of homogeneity of dimensions, find the SI units in which the constants A and B must be expressed.
- 6. In the equation: $y = a \sin (\omega t kx)$, t and x stand for time and distance respectively. Obtain the dimensional formula for ω and k.
- 7. Check the correctness of following relation by the method of dimensions.

$$t = \frac{\sqrt{\rho r^3}}{T}$$

Where, 't' = time period of oscillation, ρ = density, r = radius, T = force of surface tension.

8. The frequency (n) of vibrations of a string of length l, mass per unit length m & having a tension T in it, is given by

$$n = \frac{1}{2l} \sqrt{\frac{T}{m}}$$

Check by the method of dimensional analysis, whether the relation is correct.

- 9. $S_{nth} = u + \frac{1}{2} a (2n 1)$ Where S_{nth} is the distance travelled in the nth second Is the above formula dimensionally correct?
- 10. Force of viscosity F acting on a spherical body moving through a fluid depends upon its velocity (v), radius(r) & co-efficient of viscosity ' η ' of the fluid. Using method of dimensions obtain an expression for 'F'.
- 11. The frequency ' ν ' of vibration of a stretched string depends upon: (i) its length l, (ii) its mass per unit length 'm' and (iii) the tension T in the string. Obtain dimensionally an expression for frequency v.
- 12. Assuming that the critical velocity v_c of a viscous liquid flowing through a capillary tube depends only upon the radius r of the tube, density ρ and the coefficient of viscosity n of the liquid, find the expression for critical velocity.
- 13.If force (F), length (L) & time (T) are chosen as the fundamental quantities, then what would be the dimensional formula for density?
- 14. If the units of force, energy and velocity are 20N, 200J and 5 ms⁻¹, find the units of length, mass and time.
- 15. When 1m, 1Kg and 1 min are taken as the fundamental units, the magnitude of the force is 36 units. What will be the value of this force in CGS system?
- 16. Round off the following numbers as indicated
 - i) 18.35 up to 3 digits

ii) 143.45 up to 4 digits

- iii) 18967 up to 3 digit
- iv) 12.653 up to 3 digits
- v) 248337 up to 3 digits
- vi) 321.135 up to 5 digits
- vii) 101.55×10^6 up to 4 digits
- viii) 31.325×10^{-5} up to 4 digits

17. State the number of significant figures in the following

- i) 2.000m ii) 5100Kg iii) 0.050cm
- 18.If L = 2.5 x 10^4 and B = 3.9 x 10^5 then find LB up to correct no. of significant figures.
- 19.Subtract 2.5×10^4 from 3.9×10^5 with due regard to significant figures.
- 20.The radius of a sphere is 1.41 cm. Express its volume to an appropriate number of significant figures.
- 21. The mass of a body is 275.32 g & its volume is 36.41 cm³. Express its density upto appropriate significant figures.

Assertion Reasoning Questions: two statements are given – one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (a), (b), (c) and (d) as given below.

- (a) Both A & R are true and R is the correct explanation of A.
- (b) Both A & R are true but R is NOT the correct explanation of A.
- (c) A is true but R is false.
- (d) A is false and R is also false.
- 22. Assertion (A): Mass, volume and time may be taken as fundamental quantities. Reason (R): Mass, volume and time are independent of one another.
 - (a) (b) (c) (d)
- 23. Assertion (A): The precision of measurement depends upon the least count of the measuring instrument.

Reason (R): The smaller the least count, greater is the number of significant figures in the

measured value.

(a) (b) (c) (d)

24. CASE BASED QUESTION

DISTANCE MEASUREMENT BY PARALLAX METHOD:



Parallax is the name given to change in the position with respect to the background, when the object is seen from two different positions. The distance between the two positions of observation is called the basis. Using parallax method, a person wanted to measure the distance D of a star S from earth which is generally less than 100 light years. To measure the distance D of the planet S (above fig.), using this method, he observed S from two different positions A and B on earth, separated by a distance b. He measured the angle θ and then found D as,

$$D = \frac{b}{\theta} -$$

1. By parallax method, usually a distance of less than 100 light years is measured. This is because,

a) on earth surface, one cannot get two observation points 100 light years or more apart.

- b) if distance will be 100 light years or more, the parallactic angle becomes so small that, it cannot be measured.
- c) generally, bodies are not found which are 100 lightyears or more apart.

d) a telescope cannot see the object whose distance from earth is 100 light years or more.

2. The distance 'b' between the two points A and B (above fig) is called,

(a) parallactic distance (b) basic distance (c) parallax distance (d) basis

3. The apparent shift in the position of an object is called

(a) basis (b) base line (c) parallax (d) parallactic angle 4. If the person observes the star 'S' from two diametrically opposite points on equator of earth and finds the parallax angle to be 2 minutes, then the distance of S from earth is.

(a) $2x10^{10}$ m (b) $2.2x10^{10}$ m

(c) $22x10^{10}$ m (d) $0.22x10^{10}$ m

5. The person observed, by the parallax method, the angular diameter of Sun to be 1920".

Its linear diameter	will be
(a) $1.39 \times 10^9 \text{ m}$	(b) 1.19×10^9 m.
(c) 1.39×10^8 m.	(d) 1.19 x 10 ⁸ m

HOLIDAY HOMEWORK (STD XI) SUBJECT : CHEMISTRY

CHAPTER: SOME BASIC CONCEPTS OF CHEMISTRY

CASE BASED QUESTIONS

1. Read the passage given below and answer the following questions (1x 4)

The most common way in which students determine which reactant is limiting is through the method of minimal product. By calculating how much product forms for each of the reactants, the limiting reagent is determined to be the reactant that produces the least amount of product. However, it is also important for students to recognize the role the excess reactant(s) take in the reaction.

Herein, we present a conceptual approach to limiting-reagent problems that is based on the following definition: the limiting reagent of a reaction is the reactant that is exhausted first. For simplicity sake, we begin with an example involving the number of molecules produced and consumed in a reaction. This calculation is then scaled up to moles, the more common unit for expressing the quantity of a chemical substance.

The following questions are multiple choice questions. Choose the most appropriate answer.

- i) For a reaction $A + 2B \longrightarrow C$, the amount of C formed by starting the reaction with 5 moles of A and 8 moles of B is:
 - (a) 5 moles (b) 8 moles
 - (c) 16 moles (d) 4 moles

ii) The mass of iron which will be converted into its $oxide(Fe_3O_4)$ by the action of 18 g of steam on it is:

(a) 52 g	(b) 48 g
(c) 42g	(d) 69g

iii) 1.25 g of a metal (M) reacts with oxygen completely to produce 1.68 g of metal oxide. The empirical formula of the metal oxide is:

[The atomic mass of the metal M is 69.7g/mol)

$(a)M_2O$	(b) M_2O_3
$(c)MO_2$	(d) M ₃ O ₄

iv) When 22.4 L of C_4H_8 at STP is burnt completely, 89.6L of CO_2 gas at STP and 72 of water are produced. The volume of the oxygen gas at STP consumed in the reaction is closest to:

(a) 89.6L	(b) 112L
(c) 134.4L	(d) 22.4L

2. Read the passage given below and answer the following questions: (1×4)

Concentration is a fundamental measure in chemistry and refers to a group of quantities (such as the mass, amount, or volume) characterizing the composition of a mixture with respect to the volume of the mixture. There are several ways to express the concentration of an analytical solution. Among these are the amount concentration, collectively known as the molarity, which is the amount of the analyte divided by the volume of the solution. Similar to this quantity is the molality, which is the amount of the analyte divided by the analyte divided by the mass of the solvent.

Molality is considered chiefly to describe colligative properties and thermodynamic relationships, whereas molarity is used in quantitative analysis. Molarity is a volume concentration and therefore is temperature- dependent. Molality, on the other hand, is independent of temperature. However, unlike molarity, molality depends on the internal state of the system and can change when the analyte (solute) reacts with the solvent or when the solvent undergoes self-dissociation.

The following questions are Reason Assertion type questions carrying 1 mark each. Choose the correct answer out of the following choices.

(i) Assertion: Molality is preferred over molarity in expressing concentration of solution. **Reason:** Molality depends on temperature while molarity is independent of temperature .

(ii) Assertion: If volume of a solution changes by 20%, then molar conc. of the solution changes by 20%.

Reason: The no of moles of solute in the solution does not remains the same on dilution.

(iii) Assertion: One molar aqueous solution has always higher concentration than one molal solution.

Reason: One molar solution contains less solvent than one molal solution.

(iv)Assertion: Osmotic pressure of a solution uses molarities instead of molalities.Reason: The solution which contains one mole of solute per liter of solution is called molar solution.

3. The following questions are Reason Assertion type questions carrying 1 mark each. Choose the correct answer out of the following choices.

- (i) Assertion: Both 106 g of sodium carbonate and 12 g of carbon have same no of carbon atoms.
 - **Reason :** Both contain 1 g atom of carbon which contains Avogadro's no of carbon atoms
- (ii) Assertion: Atomic mass of potassium is 39amu
- **Reason:** An atom of potassium is 39 times heavier than $\frac{1}{12}$ th an atom of carbon-12 isotope
- (iii) Assertion: No of moles of H_2 in 0.224 L of hydrogen is 0.01 mole.

Reason: 22.4 L of H_2 at STP contain 6.022 X 10^{23} moles.

(iv) Assertion: Atomic mass of Na is 23.

Reason: An atom of sodium is 23 times heavier than 1/12th mass of C-12 isotope.

(v) Assertion: Number of atoms of He in 60 u of He is 15.

Reason : Atomic weight of He is 4 u .

MCQ QUESTIONS

- Q.1 What is the mass of 0.1 mole CH_4 gas?
- (a) 1.6g (b) 10g (c) 5g (d) 0g

Q.2 What is the no of molecules present in 0.2 mole of O_2 gas?					
(a) 0.2× N	(b) 12N	(c) N	(d) N/2		
Q.3 What is the no of electrons present in 0.1 mole of H_2O ?					
(a) 0.1× N	(b)0.1× N ×18	(c) 0.2× N	(d) 0.1×18		
Q.4 What is the no of	moles of carbon ator	n available in 3 n	noles of C_2H_6 ?		
(a) 5 mole	(b) 6 mole	(c) 3 mole	(d) 2 mole		
Q.5 What is the volur	me of 3 mole of CH ₄ a	at NTP?			
(a) 22.4 L	(b) 3× 22.4 L	(c) 2× 22.4 L	(d) None		
Q.6 What is the mass	of 11.2 L of N_2 at N	ГР?			
(a) 28g	(b) 14g	(c) 56g	(d) None		
Q.7 What is the mass	of 1g atom of oxyger	n?			
(a) 16g	(b) 32g	(c) 28g	(d) 14g		
Q.8 What is the volur	me of 22g of CO_2 at N	NTP?			
(a) 22.4 L	(b)11.2 L	(c) 2× 22.4 L	(d) None		
Q.9 What is the relati	ve atomic mass of Na	1?			
(a) 23u	(b)24u	(c) 25u	(d) 22u		
Q.10 What is the no of Na^+ ions available in 3 mole of NaCl solution ?					
(a) 3 mole	(b)4 mole	(c) 2 mole	(d) 8 mole		
Q.11 Equal volume of all gases under similar conditions of temp. and pressure contain equal no of molecules . This is?					
(a) Avogadro's Hypo	thesis	(b) Berzelious'	s Hypothesis		
(c)Dalton's Hypothesis		(d) Gay Lussac	z's Hypothesis		
Q.12 What is the no of Oxygen atoms available in 2 mole H_2SO_4 ?					

(a) $2 \times N \times 4$ (b) $2 \times N \times 3$ (c) $1 \times N \times 4$ (d) N/2

- Q.13 What is the relative molecular mass of H₂SO₄?
- (a) 98 (b) 49 (c) 50 (d) 100
- Q.14 What is the no of molecules present in 11.2 L of Cl₂at NTP?
- (a) 0.5 mole(b) 1 mole(c) 2 mole(d) 4 moleQ.15 What is the no of atoms present in 3 mole of CH₄?
- (a) $3 \times N \times 5$ (b) $2 \times N \times 5$ (c) $1 \times N \times 5$ (d) N/2
- Q.16 What is the relative molecular mass of CaCO₃?
- (a) 100 (b) 60 (c) 50 (d) 90

VERY SHORT ANSWER TYPE QUESTIONS

- Q.17 What is significant figure?
- Q.18 How many significant figures are present in 0.0025?
- Q.19 What is Gay Lussac's law of Gaseous volumes?
- Q.20 What is the empirical formula of CH₃COOH?

Q.21 Determine the empirical formula of an oxide of iron which has 69.9% iron and 30.1% dioxygen by mass?

- Q.22 What is the equivalent mass of Na₂CO₃?
- Q.23 Calculate the mass percent of different elements present in sodium sulphate (Na₂SO₄)?
- Q.24 Calculate the no of atoms in each of the following (i) 52u of He (ii) 52g of He?
- Q.25 Calculate the number of electrons present in 51g of NH₃?
- Q.26 How many SO_4^{--} ions are present in 49g of H_2SO_4 ?

HOLIDAY HOMEWORK XI- MATHEMATICS

- 1. Give an examples of two sets ?
- 2. What is empty set ? give an example?Also find P(P(P(Empty set))).
- 3. Draw the venn diagram of AU(BUC) and A-(B-C).
- 4. If a set A has n elements, then find the total number of subsets of A ?
- 5. Find The number of proper subsets of the set {1, 2, 3,4,5,6}?
- 6. If A and B are sets, then prove that P(AUB) is not necessarily equal to P(A)U (P(B).
- 7. If A and B are two sets, then find $A \cap (A \cup B)'$
- 8. Let $U = \{1, 2, 3, 4, 5, 6, 7, 8, 9, 10\}$, $A = \{1, 2, 5\}, B = \{6, 7\}$, then find $A \cap B'$
- 9. If A is any set, then which of the following is correct
 - (a) $A \cup A' = \phi$ (b) $A \cup A' = U$
 - (c) $A \cap A' = U$ (d) None of these
- **10.** If $N_a = [an: n \in N]$, then find $N_5 \cap N_7 =$
- 11. If A and B are any two sets, then find the value of $A \cup (A \cap B)$
- 12. If A and B are two given sets, then find the value of $A \cap (A \cap B)^c$
- 13. If the sets A and B are defined as

$$A = \{(x, y) : y = \frac{1}{x}, 0 \neq x \in R\}$$

- 14. Let $A = [x : x \in R, |x| < 1]$; $B = [x : x \in R, |x-1| \ge 1]$ and $A \cup B = R D$, then the find set D
- 15. In a town of 10,000 families it was found that 40% family buy newspaper A, 20% buy newspaper B and 10% families buy newspaper C, 5% families buy A and B, 3% buy B and C and 4% buy A and C. If 2% families buy all the three newspapers, then find the number of families which buy A only.

- In a city 20 percent of the population travels by car, 50 percent travels by bus and 10
 percent travels by both car and bus. Then find the persons travelling by car or bus.
- 17. In a class of 55 students, the number of students studying different subjects are 23 in Mathematics, 24 in Physics, 19 in Chemistry, 12 in Mathematics and Physics, 9 in Mathematics and Chemistry, 7 in Physics and Chemistry and 4 in all the three subjects. Find the number of students who have taken exactly one subjects. Also find the number of students who have taken exactly two of the subjects.
- 18. Out of 800 boys in a school, 224 played cricket, 240 played hockey and 336 played basketball. Of the total, 64 played both basketball and hockey; 80 played cricket and basketball and 40 played cricket and hockey; 24 played all the three games. Find the number of boys who did not play any of the games.
- A survey shows that 63% of the Americans like cheese whereas 76%like apple. If x%of the Americans like both cheese and apples, find the value of x.

20.Solve all the problems from NCERT Book from the chapter sets in HW COPY. 21. Learn formulae of trigonometric functions and Logarithm.

CHAPTER-1 (SETS)

DESCRIPTIONS

In a Republic Day program, a school organized different competitions and awarded 36 medals in solo-dance, 12 in mono-action and 18 medals in music. Assuming A as the set of students got medals in solo-dance, B as the set of students got medals in mono-action and C as the set of students got the medals in music and if these medals went to a total of 45 students and only 4 students got medal in all categories.



Based on above situation answer the following questions:

(i)	The number of students got medals in at least one of the three events is			
	a) 49	b) 45	c) 66	d) 54
(ii)) The number of participants in the above competitions together is			
	a) 45		b) More the	an 45
	c) Less the	an 45	d) More th	an or equal to 45
(iii)	The number	of students who	don't get any med	dal at all
	a) ()	b) 9	c) 15	d) Data insufficient
(iv)	The number of a) $n(A \cap B)$ b) $n(A \cap B)$ c) $n(A \cap B)$ d) None of	of students below $(B \cap C) + n(B \cap C) + n($	nging to exactly tw $n(C \cap A) - 3n(A)$ $n(C \cap A) - 2n(A)$ $n(C \cap A) - n(A)$	wo of the three sets A, B, C is $A \cap B \cap C$ $\cap B \cap C$ $\cap B \cap C$
(v)	The number of a) 13	of students recei b) 12	ved medals in exa c) 18	actly two of these categories is d) 23

In a survey the class teacher of a class having strength 40 revealed that each student in his class plays at least one of the indoor games: chess, carrom or scrabble. 18 students play chess, 20 students play scrabble and 27 students play carrom. 7students play chess and scrabble, 12 students play scrabble and carrom and 4 students play chess, carom and scrabble.



(ii) The number of students who play chess, carrom but not scrabble is					
	a) 10	b) 9	c) 6	d) 11	
(iii) T	The number of st	tudents who pl	ay exactly two ga	ames is	
	a) 13	b) 17	c) 19	d) 21	
(iv) T	The number of st	udents who pla	ay exactly one ga	ime is	
		-			
	a) 17	b) 19	c) 21	d)23	
	T 1 1	<u> </u>	1 , 1	6.1	
(V)	The number o	f students who	do not play any	of the	
	above mention	ned games is			
	a) 5	b) 3	c) 1	0.(b	
	a) J	0) 3	C) 1	u) o	
In an Art school, 35 students are enrolled in a drawing class and 57 students are in a dance					
class. The management of the school decided either to conduct the classes at the same hour					

or at different hours, keeping the number of students enrolled in both the classes.



Based on this situation answer the following:

(i)	When two classes meet at the same hour, the number of students who are either			
	in the drawing	g class or in the	dance class is	
	a) 35	b) 57	c) 92	d)none of these

(ii) When two classes meet at the same hour and 10 students out of them decide not to attend the class then the number of students attending the dance class is
a) 47 b) 57 c) 52 d) data insufficient

(iii)	Considering two classes meet at different hours and 12 students are enrolled in both the activities, then the number of students who are either in drawing class or in dance class is			
	a) 80	b) 60	c) 57	d) none of these
(iv)	Considering both the act class is a) 45	g two classes meetivities, then the r b) 25	et at different ho number of studer c) 23	urs and 12 students are enrolled in hts who are only in the drawing d)none of these
(v)	Considering both the act a) 57	g two classes meetivities, then the r b) 45	et at different ho number of studer c) 68	urs and 12 students are enrolled in nts in the dance class is d) none of these

HOLIDAY HOMEWORK (STD XI) SUBJECT : HINDI

- (1) निम्न विषयों पर रचनात्मक अनुच्छेद लिखिए :
- (क) पहली बारिश का मंज़र
- (ख) प्रकृति की सुंदरता
- (ग) मेरी अनोखी यात्रा

(2)(क) आपके क्षेत्र में स्थानीय चिकित्सालय में दवाइयों की कमी के कारण मरीजों की हालत बिगड़ती जा रही है,मरीजों के स्वास्थ्य को ध्यान में रखते हुए मुख्य चिकित्सा अधिकारी को दवाई मुहैया कराने के लिए पत्र लिखिए :

(क) अभी महँगाई आसमान को छू रही है,इसके बारे में आप दैनिक समाचार पत्र के संपादक को सरकार के ध्यान आकर्षित करने के लिए पत्र लिखिए जिससे महँगाई पर सरकार ध्यान दें :

HOLIDAY HOMEWORK (STD XI) SUBJECT : BIOLOGY

CH 1

- 1. Plants and animals grow by mitotic division. What differences do they exhibit in their growth?
- 2. Name the four processes that are basic taxonomy.
- 3. How is botanical garden different from a museum?Name any two famous Botanical garden in India.
- 4. What is meant bylead and couplet in taxonomic keys?
- 5. Mention any four methods in which plants and animals specimens are preserved in a museum.
- 6. Write the four importance of botanical garden.
- 7. How does a manual differ from a flora?
- 8. What is Red Data book? Where was the first zoological museum started?
- 9. List theinformation that should be shown on the label of a herbarium sheet
- 10.Describe binomial nomenclature with example.
- 11. Write a short account on herbarium as a taxonomic aids.
- 12.Mention the basis of classification.What educative advantage do you get from a botanical garden and a zoological park?
- 13.List the draw back of common name.
- 14.A ball of snow when rolled over snow increases in mass, volume and size. Is this comparable to growth as seen in living organisms? Why?
- 15.International Code of Botanical nomenclature (ICBN) has provided a code for classification of plants. Give hierarchy of units of classification botanists follow while classifying plants and mention different 'Suffixes' used for the units.
- 16. When you try to define "living", we look for certain distinctive characteristics of living organisms. Mention six such features.
- 17.What is the difference between flora, fauna and vegetation? Eichornia crassipes is called as an exotic species while Rauvolfia serpentina is an endemic species in India. What do these terms exotic and endemic refer to?
- 18.Define a taxon. What is meant by taxonomic hierarchy. Give a flow diagram from the lowest to highest category for a plant and an animal. What happens to the number of individuals and number of shared characters as we go up the taxonomical hierarchy?

- 19. Metabolism is a defining feature of all living organisms without exception.
- 20.Isolated metabolic reactions in vitro are not living things but surely living reactions. Comment
- 21.A student of taxonomy was puzzled when told by his professor to look for a key to identify a plant. He went to his friend to clarify what 'Key' the professor was referring to? What would the friend explain to him?
- 22.A scientist has come across a plant which he feels is a new species. How will he go about its identification, classification and nomenclature.

Brassica Campestris linn

- a. Give the common name of the plant.
- b. What do the first two parts of the name denote?
- c. Why are they written in italics?
- d. What is the meaning of linn written at the end of the name?
- 23.How do you prepare your own herbarium sheets? What are the different tools you carry with you while collecting plants for the preparation of a herbarium?
- 24. What information should a preserved plant material on the herbarium sheet provide for taxonomical studies?

CH 2

- 1. How are red rides caused and why are they harmful?
- 2. Which class of Kingdom fungi has both unicellular as well as multicellular members? When is a fungus called coprophilous?
- 3. How are viroids different from viruses?
- 4. Find out what do the terms "algal bloom" & "red tides" signify?
- 5. Give scientific name of species of fungus:
 - a) Produces a plant disease
 - b) Is edible
 - c) A source of antibiotic
 - d) Used in manufacture of ethanol.
- 6. State an economically important use of (i) Heterotrophic bacteria. (ii) Archaebacteria.
- 7. What are the demerits of five kingdom classification?
- 8. What is the basis of Whittaker's system of classification?
- 9. Some symbiotic organisms are very good pollution indicators and composed of a chlorophyllus and a non-chlorophyllus member. Describe them.
- 10. Write any three differences between phycomycetes and acsomycetes.
- 11.Describe the three common steps in the sexual reproduction of fungi.
- 12. Why are Deuteromycetes called imperfect fungi?
- 13. What do the terms phycobiont and mycobiont signify?
- 14. Name a phycomycete that is parasitic on mustard.

- 15. Fungi was previously included in the plant kingdom. Now, why have they been removed from plant kingdom and placed as a separate kingdom?
- 16. Define alternation of generation.

17. What is diatomaceous earth? Mention two uses of it to human beings.

18.



- a) To which class of fungi does it belong?
- b) Write any two characteristic features of this class.
- 19.Name any three parasitic protozoans and mention the disease each of them causes in human beings.
- 20. Highlight the criteria considered for five kingdom system of classification.
- 21. What is a bacteriophage? Draw a neat labelled diagram of a bacteriophage. Name any two diseases caused by viruses in human beings.
- 22.List the different stages in the sexual cycle of fungi. Name any two sexual spores in fungi. What do you mean by dikaryophase?
- 23. Describe briefly the four major groups of Protozoa. Name any two diseases caused by protozoans in human beings.
- 24. How are viroids different from viruses? Mention any four symptoms of viral diseases in plants.
- 25. Give a comparative account of the classes of kingdom fungi under the following
 - a) Mode of nutrition
 - b) Mode of reproduction.
- 26. Give scientific name of species of fungus:- (a) Produces a plant disease (b) Is edible

Assertion Reason Question

Assertion: Algae is a collective term for all those chlorophyll bearing organisms which are thalloid.

Reason: Presently algae are grouped in three kingdoms.

(a) If both the assertion and the reason are true and the reason is a correct explanation of the assertion.

(b) If both the assertion and the reason are true but the reason is not a correct explanation of the assertion.

(c) If the assertion is true but the reason is false.

(d) If both the assertion and the reason are false.

(e) If the assertion is false but the reason is true.

Assertion: Algae and fungi are grouped in thallophyta.

Reason: Algae and fungi show no differentiation in thallus.

(a) If both the assertion and the reason are true and the reason is a correct explanation of the assertion.

(b) If both the assertion and the reason are true but the reason is not a correct explanation of the assertion.

(c) If the assertion is true but the reason is false.

(d) If both the assertion and the reason are false.

(e) If the assertion is false but the reason is true.

Assertion: Each group of algae has a characteristic colour.

Reason: Each group of algae show predominance of one pigment.

a) If both the assertion and the reason are true and the reason is a correct explanation of the assertion.

b) If both the assertion and the reason are true but the reason is not a correct explanation of the assertion.

- c) If the assertion is true but the reason is false.
- d) If both the assertion and the reason are false.
- e) If the assertion is false but the reason is true.

Assertion: Only red algae are able to flourish at the great depth of sea.

Reason: Red algae has the pigments of r-phycoerythrin and r-phycocyanine.

a) If both the assertion and the reason are true and the reason is a correct explanation of the assertion.

b) If both the assertion and the reason are true but the reason is not a correct explanation of the assertion.

c) If the assertion is true but the reason is false.

- d) If both the assertion and the reason are false.
- e) If the assertion is false but the reason is true.

Case Based Question

Algae are diverse group of aquatic organism down that have the ability to conduct photosynthesis. They are unicellular or multicellular and undifferentiated organisms that occur in variety of forms and sizes. Algae belong to a polyphyletic group, i.e. the organisms of this group are not necessarily related to each other. Based on the pigment, composition and reserved food material, algae has been divided into three major classes, viz. Chlorophyceae, Phaeophyceae and Rhodophyceae. The members of these classes also differ in cell wall composition, stored food material, body structure, mode of reproduction, etc.

- (i) A representative organism of class Rhodophyceae is(a) Spirogyra (b) Fucus (c) Polysiphonia (d) Chlorella
- (ii) Multicellular, saline forms are found in
- (a) Rhodophyceae (b) Chlorophyceae (c) Phaeophyceae (d) All of these
- (iii) Stored food material in class Phaeophyceae is
- (a) mannitol and laminarin
- (b) floridean slarch
- (c) pyrenoids
- (d) All of the above
- (iv) Cell wall of Porphyra (red algae) contains
- (a) cellulose age

(b) pectins

(c) polysulphate esters

(d) All of the above

(v) Identify the correct characteristics about the flagellate green alga shown in the given diagram,



I. Its cell wall contains cellulose and pectose.

II. It is Chlamydomonas that is a snow dwelling form.

III. It belongs to the class-Chlorophyceae.

IV. It undergoes asexual reproduction by aplanospores.

(a) I, II and III

(b) II and IV

(c) II, III and IV

(d) I, II, III and IV

HOLIDAY HOMEWORK (STD XI) SUBJECT : COMPUTER SCIENCE

Q1. Write a note about fundamental units of memory ?

Q2.What is the use of APU, GPU in mobile system?

Q3.What is SOC ? How is it different from CPU and why it is considered for better development ?

Q4. What does a bus mean ? What is the difference between address bus and data bus ?

Q5. Differentiate between Internal and external memory .

Q6. Find the greater from the following :

 $2^{30}\,$ MB X $2^{20}\,$ KB , $2^{12}\,$ MB X $2^{8}\,$ GB

Q7. Rahul is experiencing that his computer has slowed down and its takes longer time to access any file in a disk . Suggest an appropriate utility software he can used to improve disk access ?

Q8. What functions are performed by ALU ? Is it an independent unit ?

Q9. What is the purpose of Cache Memory ?

Q10. Distinguish between the following pairs :

- a) Primary memory and Secondary memory
- b) RAM and ROM
- c) Bluetooth and Infrared Port

Q11. What functions are performed by the Control Unit ? Can we call it the control centre of

Computer system ? Why ?

Q12. Why is it more appropriate to call RAM as Read – Write memory ?

Q13. Write the main difference between Microcontroller and the Microprocessor . Why do

smart home appliances have a microcontroller instead of microprocessor embedded in them ?

Q14. Name the input or output device used to do the following :

- a) To output audio
- b) To enter textual data
- c) To make hard copy of a text file
- d) To display the data or information
- e) To enter audio based command
- f) To build 3D models
- g) To assist a visually impaired individual in entering data .
- Q15. Explain different types of batteries used in mobile system .
- Q16. Explain in brief the different ports and their purposes .
- Q17. Give duals for the following –
- (a)X+X'Y (b)XY+XY'+X'Y (c) AB+A'B

(d) ABC+AB'C+A'BC' (e) (A + 1).(A+0) (f) (A.0.1)+(A+B)

Q18. Draw logic circuit diagram for the following expression –

(a) Y = AB + B'C + C'A' (b) R = XYZ' + Y.(X+Z')

Q19. Obtain the Boolean Expression for the logic circuit shown below –



Q20. State De-Morgan's law of Boolean Algebra and verify them using truth table.

Q21. State and verify distributive law in Boolean algebra.

Q22. Prove algebraically that (X+Y).(X+Z)=X+Y.Z

Q23. Draw the Logical Circuit for : Y = AB'C'D' + ABC'D' + ABCD

Q24. Write the equivalent Boolean expression for the logic circuit :



Q25. Verify X'Y + XY' + X'Y' = X' + Y' using truth table.

Q26. Draw a logical circuit diagram for the following Boolean expression :

A (B + C')

Q27. CASE STUDY BASED QUESTIONS

Mr Adam, a singer purchased a new computer. Sometimes he uses it to listen to music or to watch his favourite movie. He prefers to use the CDROM for this purpose. One day, he was

unable to listen music, in spite of loading the CD in the CD drive. He decided to fix the problem. Then, he went across various sites to get some help. In almost every site, he found the term *IPO Cycle*. So, he wanted to know about IPO cycle for playing music.

- a) Name an input device which can be used by Mr Adam to record a song.
- b) Suggest the output device that can be used by Mr Adam while playing music.
- c) Mention the name of any two storage devices to store data.
- d) How the IPO cycle works?

e) Name any two common file formats to store a music file.

Q28. Mr. Banoj opened his laptop for online class, but it took more time than usual to open. So he checked his system and found many files are there with the same name and contents of some files are missing. Even if he had never used any secondary storage devices in his laptop, this situation happened. So, he decided to install antivirus software to prevent his laptop from this situation.

a) Suggest Mr. Banoj, the cause of slowing down of the computer, replication of files and missing of contents from files.

b) Name the category to which Antivirus software belongs to.

c) Which type of OS does Unix belong to, according to license?

d) As an IT expert, suggest Mr. Banoj for an appropriate OS which is more secured in the absence of Antivirus software

- i) Windows
- ii) Unix
- iii) Both A and B
- iv) None of these

e) What could be the possible source of virus in Banoj's system in the above example?

HOLIDAY HOMEWORK (STD XI) SUBJECT : PHYSICAL EDUCATION

Multiple Choice questions:-

- Q-1- Competition are helpful for the development of
- a- Social qualities
- b- Selection of players
- c- Sports Skills
- d- All of the above
- Q-2- Which one of the following components is not included in Khelo-India Programme?
- a- Play field development
- b- Talent search and development
- c-Sports for Women.
- d- To organise cricket Competition.
- Q-3- In which year, the first Asian games were Organised in India?
- a- 1915
- b- 1951
- c- 1975
- d- 1995
- Q-4- The Career options through Physical Education are
- a- Physical Education Teacher
- b- Sports Journalist
- c- Administration
- d- All of the above
- Q-5- Aim and Objectives of Physical Education.

- a- Neuro-muscular Coordination
- b- Development of Health
- c- Mental Development
- d- All of the above
- Q-6- Khelo-India- Khelo Programme has been Lunched by
- a- Sports Authority of India
- b- Indian Olympic Association
- c- Ministry of Sports affairs
- d- None of these
- Q-7-Which of the following games is not part in Olympic games?
- a- Football
- b- Athletics
- c- Judo
- d- Cricket
- Q-8- "FIFA" was established on
- a- 1897
- b- 1899
- c- 1904
- d- 1914
- Q-9- Which one of the following objectives is not the objective of physical Education mention by Book Walter?
- a- Health
- b- Ethical character
- c- Physical fitness

d- All of the above.

Q-10-Discuss about Coaching Career in Physical Education.

Q-11- Write down any nine tournaments of Football.

Q-12- Briefly explain the Health- related Career in Physical Education.

Q-13- Write down a brief note on'Khelo-India ' Programme.

Q-14- What are the Various Career options in Physical Education? Discuss the teaching career in detail.

Q-15- Write short notes on any two of the following.

a- Career in Book Writing

b- Career in Sports Photography

c- Career in Sports Industry.

d-Career in Sports Broadcasting.

ACTIVITIES :

1- Write 🖄 the History and Rules & Regulations of the written below four games.

a)- Athletics

b)- Badminton

c)- Archery

d)- Boxing

2- Draw a 400mtr. Running Track With Marking.

a)- Starting Point of

110mrs. Hurdles, 600mtrs, 1500mtrs, 3000mtrs.

b)- Finishing Point.

3- How Fitness is important for us ? Explain

4- Write about Ancient Olympics.

5- YOGA

- a)- Suryanamaskar
- b)- Bhujangasana
- c)- Vajrasana
- d)- Padmasana
- e)- Ardhachandra asana

NB:- Click a photo of every Yoga asana and send it to my Gmail for CBSE documents.

<u>N.B:</u>

- ✓ Maintain index in your CW and HW copy.
- ✓ Do page numbering in all copies.

Its SUMMER TIME again. Time to strengthen your family bond, sharing joy and sorrow. Use your holiday home work as an opportunity to spend quality time together. Let your child take the lead and use his/ her imagination, creativity and knowledge to do the assigned work. The role of the parent is to be a facilitator and guide to sheer the child in the right direction. Take good care of your health and hygiene.

WE WISH YOU TONS OF HAPPINESS, JOY AND FUN WHILE YOU ARE ON VACATION. MAINTAIN SOCIAL DISTANCING AND STAY SAFE .

Supervisor

Coordinator

Principal